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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHIFERAW, ELENIA

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,464

Applicant(s)

IWAMURA, KEIICHI

Examiner

Eleni A. Shiferaw

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/16/02 & 7/18/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

1. Claims 1-27 are presented for examination.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because there should not be figure number. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 6-7, 10-12, 14, 20-23, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (Wu, Patent No.: US 6,748,533 B1).

As per claims 1 and 22, Wu teaches a system/method for embedding a digital watermark in contents, comprising:

segmentation means for segmenting objective contents into a plurality of partial contents (col. 8 lines 22-58; extracting one or several invariant features of the selected portions of the data);

encryption means for encrypting some partial contents of the plurality of partial contents obtained by said segmentation means (fig. 3 no. 304B, col. 8 lines 27-30, 38-42, & 56-58, and col. 2 lines 7-8; encrypting the extracted one or several invariant features of the selected portions/info of the data);

digital watermarking means for embedding a digital watermark in the some partial contents of the plurality of partial contents obtained by said encryption means or said segmentation means (col. 9 lines 51-52, and fig. 3 no. 308; embedding watermark on one or several invariant features of the selected portions of the data);

decryption means for decrypting the partial contents encrypted by said encryption means (col. 5 lines 12-13, and col. 9 lines 66-col. 10 lines 12)and

composition means for compositing the partial contents obtained by said decryption means and other partial contents obtained by said segmentation means (col. 4 lines 18-32).

As per claims 14, and 23, Wu teaches an apparatus/method for embedding a digital watermark in contents, comprising:

digital watermarking means for embedding a digital watermark in some partial contents of objective contents, which are segmented into a plurality of partial contents, some of which are encrypted (col. 9 lines 51-52, and fig. 3 no. 308; embedding watermark on one or several invariant features of the selected portions of the data, the selected portions are encrypted); and

means for passing the partial contents embedded with the digital watermark by said digital watermarking means to another apparatus or another means of said apparatus (col. 2 lines 27-28; passing ... electronic document or printed document ... document printer/apparatus ... electronic document apparatus).

As per claims 20 and 27, Wu teaches an apparatus/method for embedding a digital watermark in contents, comprising:

discrimination means for discriminating a format of contents (fig. 1, and col. 8 lines 49- col. 9 lines 23); and

digital watermarking means for embedding a digital watermark in the contents by a scheme corresponding to a discrimination result of said discrimination means (fig. 2 no. 224, 204, and 244).

As per claim 2, Wu teaches the system, wherein said segmentation means segments the objective contents on the basis of at least one of a frequency band of the objective contents, a feature, and said digital watermarking means (col. 9 lines 22-34).

As per claim 3, Wu teaches the system, wherein one apparatus has said respective means (col. 2 lines 5-10).

As per claim 6, Wu teaches the system, wherein said digital watermarking means embeds a digital watermark by a scheme corresponding to a purpose of use of the contents (col. 2 lines 27-28).

As per claims 7, and 21, Wu teaches the system/apparatus, wherein the purpose of use of the contents includes at least one of a print process and monitor process (col. 3 lines 62-63), and

said digital watermarking means embeds a digital watermark having robustness corresponding to the purpose of use (col. 8 lines 27-32, and 38-44).

As per claim 10, Wu teaches the system, wherein said digital watermarking means embeds a digital watermark by a scheme corresponding to the objective contents (fig. 2 no. 204, 224, and 244).

As per claim 11, Wu teaches the system, wherein said digital watermarking means embeds a digital watermark by a scheme corresponding to a format of the objective contents (fig. 1, and col. 8 lines 49-col. 9 lines 23).

As per claim 12, Wu teaches the system, wherein said digital watermarking means embeds a

digital watermark in the partial contents encrypted by said encryption means (fig. 3 no. 304B, col. 8 lines 27-30, 38-42, & 56-58, and col. 2 lines 7-8; encrypting the extracted one or several invariant features of the selected portions/info of the data).

6. Claims 16, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu (Pub. No.: US 2004/0059918 A1).

As per claims 16-17 and 25, Xu teaches an apparatus/method for embedding a digital watermark in contents, comprising:

discrimination means for discriminating a purpose of use of contents (page 2 par. 0024);
and

digital watermarking means for embedding a digital watermark in the contents by a scheme corresponding to a discrimination result of said discrimination means (page 1-2 par. 0010, and par. [0023-0024]).

As per claim 17, Xu teaches the system/apparatus, wherein said digital watermarking means embeds a digital watermark having robustness corresponding to the purpose of use (page 2 par. 0022).

7. Claims 18, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuroda et al. (Kuroda, Patent No.: US 6,707,774 B1).

As per claims 18 and 26, Kuroda teaches an apparatus/method for embedding a digital watermark in contents, comprising:

discrimination means for discriminating a type of apparatus that processes contents (Kuroda col. 25 lines 62-col. 26 lines 3); and

digital watermarking means for embedding a digital watermark in the contents by a scheme corresponding to a discrimination result of said discrimination means (Kuroda col. 25 lines 62-col. 26 lines 3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (Wu, Patent No.: US 6,748,533 B1) in view of Xu (Pub. No.: US 2004/0059918 A1).

As per claims 15 and 24, Wu teaches an apparatus/method for compositing a plurality of partial contents obtained by segmenting objective contents, comprising:

decryption means for decrypting encrypted partial contents (col. 5 lines 12-13, and col. 9 lines 66-col. 10 lines 12); and

composition means for compositing some partial contents in which a digital watermark is embedded after encryption, and some other partial contents which are not encrypted, or encrypted partial contents, using said decryption means (col. 4 lines 18-32).

Wu fail to explicitly teach composition means for compositing partial contents in which a digital watermark is embedded without encryption.

However Xu discloses digital watermarking for compressed audio data and composition means for compositing partial contents in which a digital watermark is embedded without encryption (Xu page 5 claim 5 lines 16-18).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to compose the compressed/segmented digital data that embeds watermark with partial content without encryption to form a combined digital data. One in the art would have been motivated to do so because portions of the partially segmented, partially watermark embedded, and partially encrypted digital data would combine/compose together to form watermark embedded data to control content manipulators/users from removing the digital watermark embedded on the content.

As per claim 13, Wu and Xu teach all the subject matter as described above. In addition, Xu teaches the system, wherein said digital watermarking means embeds a digital watermark in the partial contents which are not encrypted by said encryption means (page 5 claim 3 lines 13-14). The rationale for combining are the same basis as claim 15 above.

10. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (Wu, Patent No.: US 6,748,533 B1) in view of Kuroda et al. (Kuroda, Patent No.: US 6,707,774 B1).

As per claim 8, Wu teaches all the subject matter as described above. Wu fails to teach the system, wherein the purpose of use of the contents includes a process of the objective contents

using an apparatus, and said digital watermarking means embeds a digital watermark corresponding to a type of apparatus used.

However Kuroda discloses wherein the purpose of use of the contents includes a process of the objective contents using an apparatus, and said digital watermarking means embeds a digital watermark corresponding to a type of apparatus used (Kuroda col. 25 lines 62-col. 26 lines 3).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to embed digital watermark corresponding to a type of apparatus used. One skilled in the art would have been motivated to do so because it would protect digital content from being played/copied/printed on unauthorized type of apparatus.

As per claim 9, Wu and Kuroda teach all the subject matter as described above. In addition, Kuroda teaches the system, further comprising output means for outputting the objective contents after digital watermarking in a data format corresponding to the type of apparatus used (Kuroda col. 25 lines 13-27). The rationale for combining are the same as claim 8 above.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (Wu, Patent No.: US 6,748,533 B1) in view of Natarajan (Pub. No.: US 2004/0034781 A1).

As per claim 4, Wu teaches all the subject matter as described above. Wu fails to teach, wherein said system is formed by a plurality of apparatuses.

However Natarajan discloses deriving a watermark from the encrypted message digest and embedding the watermark into the digital data (abstract). Performing the various steps of watermarking process separately by different computers and processors and the results is combined to achieve the overall function of watermarking (Natarajan page 6 par. 0056 lines 20-25).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to form watermarking by a plurality of apparatus. One of ordinary skill in the art would have been motivated to incorporate the teachings of performing watermarking by a plurality of apparatus because it would have fast execution time, efficient processing speed, and good performance.

As per claim 5, Wu and Natarajan teach all the subject matter as described above. In addition, Natarajan teaches the system, wherein a first apparatus has said segmentation means, said encryption means, said decryption means, and said composition means, and a second apparatus has said digital watermarking means (Natarajan page 6 par. 0056 lines 20-25). The rationale for combining are the same as claim 4 above.

12. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al. (Kuroda, Patent No.: US 6,707,774 B1). Xu (Pub. No.: US 2004/0059918 A1).

As per claim 19, Kuroda teaches all the subject matter as described above. Kuroda fails to explicitly teach digital watermark having robustness corresponding to the type.

However Xu teaches the system/apparatus, wherein said digital watermarking means embeds a digital watermark having robustness corresponding to the type (page 2 par. 0022).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Xu within the system of Kuroda. One skilled in the art would have been motivated to incorporate watermark having robustness corresponding to the type because it would provide an excellent resistance to unauthorized removal/robustness and various kinds of unauthorized manipulation (page 2 par. 0022).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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August 26, 2005



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